

## RATE SMOOTHING CONTROL

### Abstract

A rate smoothing function used in implantable pulse generators uses detected triggering events, which cause the rate smoothing function to be activated or deactivated, and detected parameter adjusting events, which cause parameter(s) of the rate smoothing function to be changed. In one example, the activation/deactivation and/or change to the parameters of the rate smoothing function are temporary, and the pre-event state of the rate smoothing function is set to a post-adjusting state, such as after a first time interval. Rate smoothing may be selected, activated or deactivated, or adjusted based on a cardiac signal state, or based on an activity or other physiological sensor signal. The adjusted rate smoothing parameters may include an up-smoothing percentage to limit a speed of pacing rate increase and a down-smoothing percentage to limit a speed of pacing rate drop.

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